

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
690 Walnut Ave.St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

Contract #: 04-0120F4Cty: SF/Ala Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-013427**Date Inspected:** 31-Mar-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 1900**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 700**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** See below**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Tower Components**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance Inspector (QA Inspector) George Goulet was present during the times noted above for observations relative to the work being performed.

Bay 11

This QA Inspector randomly observed the following work in progress in Bay 11:

SMAW welding of unnumbered weld joint located inside PCMK east tower, lift 5, skin D to 40mm plate running horizontally approximately 1 meter from the top of lift 5. Welder was identified as 204203. ZPMC QC was identified by ZPMC QC Xu Jin Long as CWI Li Lin (QC1). Assisting QC1 at this location and appearing to be monitoring the welding and recording data was ZPMC QC Xu Jin Long, who was not a CWI. The welding variables recorded by QC1's assistant appeared to comply with WPS-B-T-3113. Also present at this location and appearing to be monitoring the welding related operations was ABF Representative Wang Jiang Hua. QC1 could not be found by this QA Inspector anywhere in Bay 11.

Bay 10

This QA Inspector randomly observed the following work in progress in Bay 10:

Flame heat straightening inside PCMK north tower, lift 4, skins A/E to corner between 114M and 115M elevations per HSR1(T)111.54. ZPMC QC was identified as CWI Du Zhi Qun (QC1). Assisting QC1 at this location and appearing to be monitoring the heat straightening and recording data was ZPMC QC Yuan Hui Gang, who was not a CWI. The heating variables recorded by QC1's assistant appeared to comply with HSR1(T)111.54. Also

WELDING INSPECTION REPORT

(Continued Page 2 of 5)

present at this location and appearing to be monitoring the welding related operations was ABF Representative Hu Gui Hua.

Heavy Dock

This QA Inspector randomly observed the following work in progress on the Heavy Dock:

FCAW welding of weld joint NSD1-SA76F/H-5 located inside PCMK north tower, lift 1 base, skin E, shear plate stiffener to connection plate. Welder was identified as 066401. ZPMC QC was identified as CWI Gong Liangzhu (QC2). The welding variables recorded by QC2 appeared to comply with WPS-B-T-2333-TC-P4-F.

FCAW welding of weld joint NSD1-SA76F/H-15 located inside PCMK north tower, lift 1 base, skin E, shear plate stiffener to connection plate. Welder was identified as 066687. ZPMC QC was identified as QC2. The welding variables recorded by QC2 appeared to comply with WPS-B-T-2333-TC-P4-F.

FCAW welding of weld joint NSD1-SA11-15 located inside PCMK north tower, lift 1 base, skin B, shear plate stiffener to connection plate. Welder was identified as 066165. ZPMC QC was identified as QC2. The welding variables recorded by QC2 appeared to comply with WPS-B-T-2333-TC-P4-F.

FCAW welding of weld joint NSD1-SA76F/G-29 located inside PCMK north tower, lift 1 base, skin C, shear plate stiffener to connection plate. Welder was identified as 068923. ZPMC QC was identified as QC2. The welding variables recorded by QC2 appeared to comply with WPS-B-T-2333-TC-P4-F.

FCAW welding of weld joint NSD1-SA76F/G-13 located inside PCMK north tower, lift 1 base, skin C, shear plate stiffener to connection plate. Welder was identified as 068865. ZPMC QC was identified as QC2. The welding variables recorded by QC2 appeared to comply with WPS-B-T-2333-TC-P4-F.

FCAW welding of weld joint NSD1-SA76F/G-19 located inside PCMK north tower, lift 1 base, skin C, shear plate stiffener to connection plate. Welder was identified as 066398. ZPMC QC was identified as QC2. The welding variables recorded by QC2 appeared to comply with WPS-B-T-2333-TC-P4-F.

FCAW welding of weld joint NSD1-SA17F/G-48 located outside PCMK north tower, lift 1 base, skin C, shear plate stiffener to connection plate. Welder was identified as 040349. ZPMC QC was identified as QC2. The welding variables recorded by QC2 appeared to comply with WPS-B-T-2333-TC-P4-F. Also present at this location and appearing to be monitoring the welding related operations was ABF Representative Li Xiu Hua.

FCAW welding of weld joint NSD1-SA17F/G-60 located outside PCMK north tower, lift 1 base, skin C, shear plate stiffener to connection plate. Welder was identified as 068916. ZPMC QC was identified as QC2. The welding variables recorded by QC2 appeared to comply with WPS-B-T-2333-TC-P4-F. Also present at this location and appearing to be monitoring the welding related operations was ABF Representative Li Xiu Hua.

FCAW welding of weld joint NSD1-SA17F/G-66 located outside PCMK north tower, lift 1 base, skin C, shear plate stiffener to connection plate. Welder was identified as 067993. ZPMC QC was identified as QC2. The welding variables recorded by QC2 appeared to comply with WPS-B-T-2333-TC-P4-F. Also present at this location and appearing to be monitoring the welding related operations was ABF Representative Li Xiu Hua.

WELDING INSPECTION REPORT

(Continued Page 3 of 5)

FCAW welding of weld joint NSD1-SA17F/G-68 located outside PCMK north tower, lift 1 base, skin C, shear plate stiffener to connection plate. Welder was identified as 067888. ZPMC QC was identified as QC2. The welding variables recorded by QC2 appeared to comply with WPS-B-T-2333-TC-P4-F. Also present at this location and appearing to be monitoring the welding related operations was ABF Representative Li Xiu Hua.

FCAW welding of weld joint NSD1-SA17F/G-78 located outside PCMK north tower, lift 1 base, skin C, shear plate stiffener to connection plate. Welder was identified as 068765. ZPMC QC was identified as QC2. The welding variables recorded by QC2 appeared to comply with WPS-B-T-2333-TC-P4-F. Also present at this location and appearing to be monitoring the welding related operations was ABF Representative Li Xiu Hua.

FCAW welding of weld joint SSD1-A111A/H-1 located outside PCMK south tower, lift 1 base, skins B/C corner to shear plate stiffener. Welder was identified as 219414. ZPMC QC was identified as QC2. Assisting QC2 at this location and appearing to be monitoring the welding and recording data was ZPMC QC Yang Mingming, who was not a CWI. The welding variables recorded by QC2's assistant appeared to comply with WPS-B-T-2333-TC-P4-F. Also present at this location and appearing to be monitoring the welding related operations was ABF Representative Li Xiu Hua.

FCAW welding of weld joint SSD1-A111A/H-1 located outside PCMK south tower, lift 1 base, skins B/C corner to shear plate stiffener. Welder was identified as 054460. ZPMC QC was identified as QC2. Assisting QC2 at this location and appearing to be monitoring the welding and recording data was ZPMC QC Yang Mingming, who was not a CWI. The welding variables recorded by QC2's assistant appeared to comply with WPS-B-T-2333-TC-P4-F. Also present at this location and appearing to be monitoring the welding related operations was ABF Representative Li Xiu Hua.

FCAW welding of weld joint SSD1-A111A/H-2 located outside PCMK south tower, lift 1 base, skins B/C corner to shear plate stiffener. Welder was identified as 040704. ZPMC QC was identified as QC2. Assisting QC2 at this location and appearing to be monitoring the welding and recording data was ZPMC QC Yang Mingming, who was not a CWI. The welding variables recorded by QC2's assistant appeared to comply with WPS-B-T-2333-TC-P4-F. Also present at this location and appearing to be monitoring the welding related operations was ABF Representative Li Xiu Hua.

FCAW welding of weld joint SSD1-A111A/H-2 located outside PCMK south tower, lift 1 base, skins B/C corner to shear plate stiffener. Welder was identified as 054459. ZPMC QC was identified as QC2. Assisting QC2 at this location and appearing to be monitoring the welding and recording data was ZPMC QC Yang Mingming, who was not a CWI. The welding variables recorded by QC2's assistant appeared to comply with WPS-B-T-2333-TC-P4-F. Also present at this location and appearing to be monitoring the welding related operations was ABF Representative Li Xiu Hua.

FCAW welding of weld joint WSD1-A423A/H-1 located outside PCMK west tower, lift 1 base, skins B/C corner to shear plate stiffener. Welder was identified as 049330. ZPMC QC was identified as QC2. Assisting QC2 at this location and appearing to be monitoring the welding and recording data was ZPMC QC Yang Mingming, who was not a CWI. The welding variables recorded by QC2's assistant appeared to comply with WPS-B-T-2333-TC-P4-F. Also present at this location and appearing to be monitoring the welding related

WELDING INSPECTION REPORT

(Continued Page 4 of 5)

operations was ABF Representative Li Xiu Hua.

FCAW welding of weld joint WSD1-A423A/H-1 located outside PCMK west tower, lift 1 base, skins B/C corner to shear plate stiffener. Welder was identified as 500405. ZPMC QC was identified as QC2. Assisting QC2 at this location and appearing to be monitoring the welding and recording data was ZPMC QC Yang Mingming, who was not a CWI. The welding variables recorded by QC2's assistant appeared to comply with WPS-B-T-2333-TC-P4-F. Also present at this location and appearing to be monitoring the welding related operations was ABF Representative Li Xiu Hua.

FCAW welding of weld joint WSD1-A423A/H-2 located outside PCMK west tower, lift 1 base, skins B/C corner to shear plate stiffener. Welder was identified as 059525. ZPMC QC was identified as QC2. Assisting QC2 at this location and appearing to be monitoring the welding and recording data was ZPMC QC Yang Mingming, who was not a CWI. The welding variables recorded by QC2's assistant appeared to comply with WPS-B-T-2333-TC-P4-F. Also present at this location and appearing to be monitoring the welding related operations was ABF Representative Li Xiu Hua.

FCAW welding of weld joint WSD1-A423A/H-2 located outside PCMK west tower, lift 1 base, skins B/C corner to shear plate stiffener. Welder was identified as 040759. ZPMC QC was identified as QC2. Assisting QC2 at this location and appearing to be monitoring the welding and recording data was ZPMC QC Yang Mingming, who was not a CWI. The welding variables recorded by QC2's assistant appeared to comply with WPS-B-T-2333-TC-P4-F. Also present at this location and appearing to be monitoring the welding related operations was ABF Representative Li Xiu Hua.

FCAW welding of weld joint WSD1-A423A/H-3B located outside PCMK west tower, lift 1 base, skins B/C corner to shear plate stiffener. Welder was identified as 040723. ZPMC QC was identified as QC2. Assisting QC2 at this location and appearing to be monitoring the welding and recording data was ZPMC QC Yang Mingming, who was not a CWI. The welding variables recorded by QC2's assistant appeared to comply with WPS-B-T-2233-TC-U5-F.

ABF Representative Li Xiu Hua informed this QA Inspector that the only work being performed at the tower trial assembly area was at the base level at the above noted locations. The tower access elevator appeared to be shut off at the 23M level.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

Summary of Conversations:

No significant conversations.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Skyler Guest, 150-0042-2360, who represents the Office of Structural Materials for your project.

WELDING INSPECTION REPORT

(Continued Page 5 of 5)

Inspected By: Goulet, George

Quality Assurance Inspector

Reviewed By: Dawson, Paul

QA Reviewer